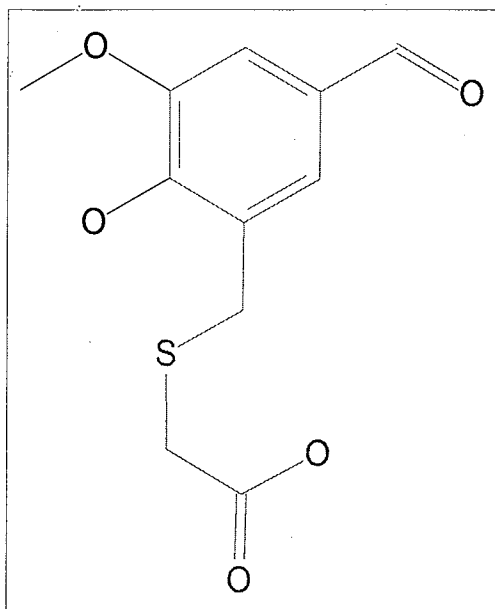


EXHIBIT E



Substance Identification

Beilstein Registry Number	6654842
Chemical Name	(5-formyl-2-hydroxy-3-methoxy-benzylsulfanyl)-acetic acid
Autoname	(5-formyl-2-hydroxy-3-methoxy-benzylsulfanyl)-acetic acid
Molecular Formula	C ₁₁ H ₁₂ O ₅ S
Molecular Weight	256.27
Lawson Number	9659, 1774, 289
Type of Substance	isocyclic
Constitution ID	5733058
Tautomer ID	6297891
Beilstein Reference	6-08

Field Availability List 1-4

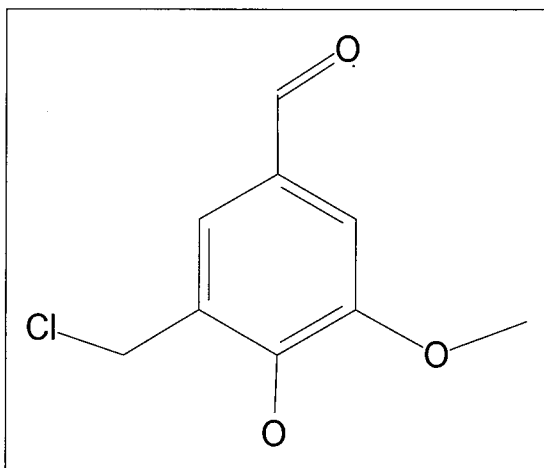
Code	Field Name	Occ.
<u>RX</u>	Reaction	2
<u>MP</u>	Melting Point	1
<u>NMR</u>	NMR Spectroscopy	2
<u>CNR</u>	Reference	1

Reaction 1 of 2

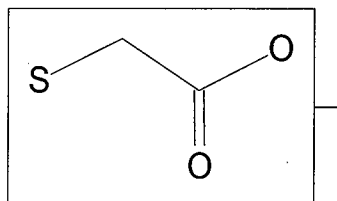
Reaction ID	<u>2901564</u>
Reactant BRN	<u>2454332</u> 3-chloromethyl-4-hydroxy-5-methoxy-benzaldehyde
	<u>506166</u> mercaptoacetic acid
Product BRN	6654842 (5-formyl-2-hydroxy-3-methoxy-benzylsulfanyl)-acetic acid
No. of Reaction Details	1
Reaction Classification	Preparation
Yield	7 percent (BRN=6654842)
Reagent	Et ₃ N
Solvent	CH ₂ Cl ₂
Time	3 hour(s)
Other Conditions	Ambient temperature

Ref. 1

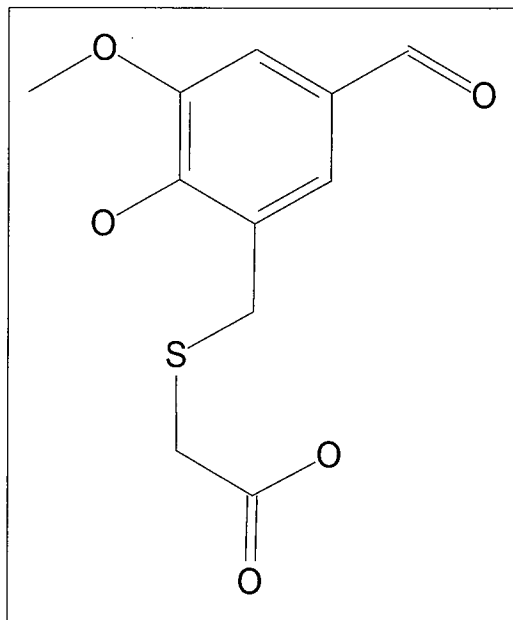
5853919; Journal; Gazit, Aviv; Osherov, Nir; Posner, Israel; Bar-Sinai, Allan; Gilon, Chaim; Levitzki, Alexander; JMCMAR; J. Med. Chem.; EN; 36; 23; 1993; 3556-3564.



Reactant 1



Reactant 2



Product 1

Reaction 2 of 2

Reaction ID

Reactant BRN

Product BRN

No. of Reaction Details

Reaction Classification

Yield

Reagent

Solvent

Time

3786999**6654842** (5-formyl-2-hydroxy-3-methoxy-benzylsulfanyl)-acetic acid**773697** malononitrile**6661603** [5-(2,2-dicyano-vinyl)-2-hydroxy-3-methoxy-benzylsulfanyl]-acetic acid

1

Preparation

82 percent (BRN=6661603)

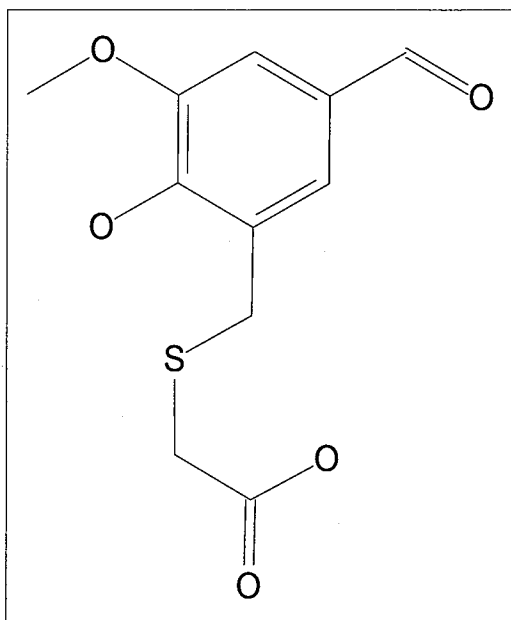
piperidine

ethanol

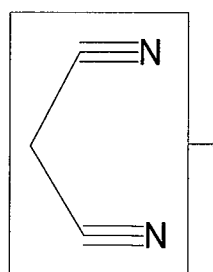
3 hour(s)

Ref. 1

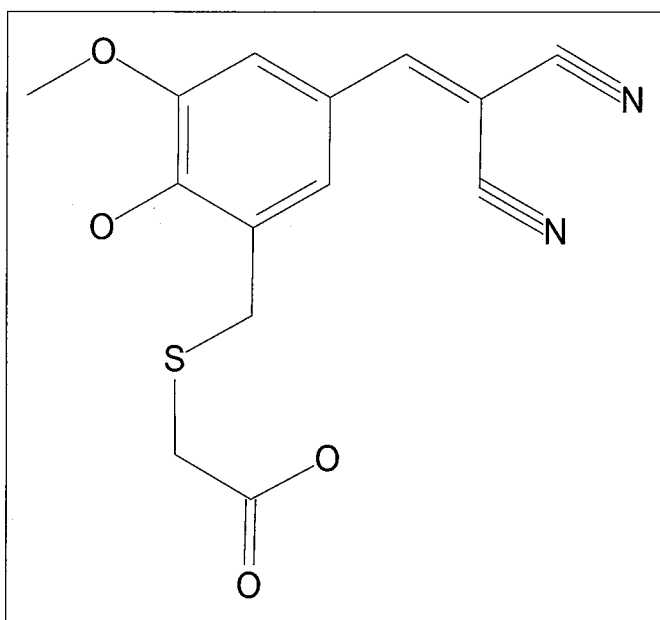
5853919; Journal; Gazit, Aviv; Osherov, Nir; Posner, Israel; Bar-Sinai, Allan; Gilon, Chaim; Levitzki, Alexander; JMCMAR; J. Med. Chem.; EN; 36; 23; 1993; 3556-3564.



Reactant 1



Reactant 2



Product 1

Melting Point

VALUE (MP) C	Solvent (.SOL)	Entry Date	Note	Ref.
130				1

Ref. 1	<u>5853919</u> ; Journal; Gazit, Aviv; Osherov, Nir; Posner, Israel; Bar-Sinai, Allan; Gilon, Chaim; Levitzki, Alexander; JMCMAR; J. Med. Chem.; EN; 36; 23; 1993; 3556-3564.
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NMR Spectroscopy 1 of 2

Description	Chemical shifts
Nucleus	¹ H
Solvents	acetone-d6

Ref. 1	<u>5853919</u> ; Journal; Gazit, Aviv; Osherov, Nir; Posner, Israel; Bar-Sinai, Allan; Gilon, Chaim; Levitzki, Alexander; JMCMAR; J. Med. Chem.; EN; 36; 23; 1993; 3556-3564.
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NMR Spectroscopy 2 of 2

Description	Spin-spin coupling constants
Solvents	acetone-d6

Note 1	¹ H- ¹ H
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Ref. 1	<u>5853919</u> ; Journal; Gazit, Aviv; Osherov, Nir; Posner, Israel; Bar-Sinai, Allan; Gilon, Chaim; Levitzki, Alexander; JMCMAR; J. Med. Chem.; EN; 36; 23; 1993; 3556-3564.
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Reference

5853919; Journal; Gazit, Aviv; Osherov, Nir; Posner, Israel; Bar-Sinai, Allan; Gilon, Chaim; Levitzki, Alexander; JMCMAR; J. Med. Chem.; EN; 36; 23; 1993; 3556-3564.